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In re Patent Application of )

Steven L. PURCELL )

Application No.: 10/786,298 )

Filed: February 26, 2004 )

For: MICRO TRENCH DUCT )  
PLACEMENT )

Group Art Unit: 3671

Examiner: Tara L. Mayo

**TRANSMITTAL FOR APPEAL BRIEF**

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Sir:

Transmitted herewith is an Appeal Brief in support of the Notice of Appeal filed January 6, 2006.

Please charge the fee of ☐ \$250.00 ☒ \$500.00 to Deposit Account No. 07-2347.

The Commissioner is hereby authorized to charge any other appropriate fees that may be required by this paper that are not accounted for above, and to credit any overpayment, to Deposit Account No. 07-2347.

Respectfully submitted,

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Date: March 6, 2006



Patent  
Attorney's Docket No. RIC03003

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of	)	
	)	
Steven L. PURCELL	)	Group Art Unit: 3671
	)	
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**APPEAL BRIEF**

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Sir:

This appeal is from the decision of the Primary Examiner dated October 6, 2005 finally  
rejecting claims 1-4, 6-13, 23-26, 28, 29, 31 and 32, which are reproduced as an Appendix to this  
brief.

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**I. REAL PARTY IN INTEREST**

The real party in interest in this appeal is MCI, L.L.C., affiliate of Verizon Communications, Inc.

**II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS**

To the best of the knowledge of the undersigned, there are no other appeals, interferences or judicial proceedings known to the Appellant, the Appellant's legal representative, or the above-noted assignee that will directly affect or be directly affected by, or have a bearing on, the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

Claims 1-4, 6-13, 23-26, 28, 29, 31 and 32 are currently pending in the application. Claims 5, 14-22, 27, 30 were canceled. Claims 1-4, 6-13, 23-26, 28, 29, 31 and 32 were finally rejected in the Office Action dated October 6, 2005, and are the subject of the present appeal. No claims have been allowed.

**IV. STATUS OF AMENDMENTS**

No amendments have been filed subsequent to the final rejection dated October 6, 2005.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

In the paragraphs that follow, each of the independent claims that is involved in this appeal, and each dependent claim that is argued separately, will be recited followed in parenthesis by examples of where support can be found in the specification and drawings.

Claim 1 recites a method that includes cutting a trench in a surface of the roadway (e.g., 100, FIG. 1; act 215, FIG. 2; paragraph [0027]) and placing a duct in the trench (e.g., 125, FIG. 1; act 815, FIG. 8; paragraph [0034]). The method further includes filling the trench with a sealer (e.g., 140, FIG. 1; act 1110, FIG. 11; paragraph [0041]) and placing a first cable within the duct (e.g., 130, FIG. 1; act 1120, FIG. 11; paragraph [0043]). The method also includes pulling the first cable out of, and through, the duct (e.g., paragraphs [0021] and [0045]) and placing a second cable within the duct without removing the sealer within the trench (e.g., paragraphs [0021] and [0045]).

Claim 23 recites a method of placing cable within concrete or asphalt that includes cutting a trench into the concrete or asphalt to a depth of approximately 3.5 to 4.0 inches from a surface of the concrete or asphalt (e.g., 100, FIG. 1; act 215, FIG. 2; paragraph [0027]) and placing a tubular material having a hollow inner diameter within the trench (e.g., 125, FIG. 1; act 815, FIG. 8; paragraph [0034]). The method further includes filling at least a portion of

the trench with a sealer (e.g., 140, FIG. 1; act 1110, FIG. 11; paragraph [0041]) and placing a first cable within the tubular material (e.g., 130, FIG. 1; act 1120, FIG. 11; paragraph [0043]). The method also includes removing the first cable from the tubular material without removing the sealer from the trench (e.g., paragraphs [0021] and [0045]) and placing a second cable within the tubular material without removing the sealer from the trench (e.g., paragraphs [0021] and [0045]).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-4, 7, 11 and 12 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 6,371,691 (hereinafter "FINZEL").

Claim 6 and 13 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL.

Claims 23, 24, 28, 29, 31 and 32 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL and U.S. Patent Publication No. 2003/0068143 (hereinafter "MARTINEZ").

Claims 8-10 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL and U.S. Patent No. 4,554,724 (hereinafter "BANTZ").

Claims 25 and 26 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL and MARTINEZ and further in view of BANTZ.

## **VII. ARGUMENT**

**A. The rejection of claims 1-4, 7, 11 and 12 under 35 U.S.C. §102(b) as allegedly being anticipated by FINZEL should be reversed.**

A proper rejection under 35 U.S.C. §102 requires that a single reference teach every aspect of the claimed invention either expressly or impliedly. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. FINZEL does not disclose, either expressly or inherently, each and every feature recited in claim 1.

Claim 1 recites a method that includes “cutting a trench in a surface of the roadway,” “placing a duct in the trench,” “filling the trench with a sealer,” “placing a first cable within the duct,” “pulling the first cable out of, and through, the duct” and “placing a second cable within the duct without removing the sealer within the trench.”

FINZEL does not disclose or suggest, for example, “placing a first cable within the duct,” “pulling the first cable out of, and through, the duct” and “placing a second cable within the duct without removing the sealer within the trench,” as recited in claim 1. In the “Response to Arguments” section of the final Office Action (pg. 9), the Examiner asserts that FINZEL “expressly teaches the steps of pulling a first cable through the duct and placing a second cable

within the duct without removing the sealer within the trench in the passage set forth in col. 26 at lines 4 through 21.”

At column 26, lines 4 – 21, FINZEL discloses the following:

FIG. 54 shows the cross-section through an elongate profile body VP comprising a solid profile which has elastic properties, but cannot be deformed plastically. The profile body is fixed in the laying channel by elastic barbs WH. Arranged within the profile body VP are longitudinally running free ducts FK into which fibres can be drawn or blown at a later point in time. Provided in the upper region of the profile body VP is a duct for *a microcable MK which is introduced into the profile body VP in the direction GR, through a longitudinally running slit VPS, before the laying operation.*

FIG. 55 shows the profile body VP of FIG. 54 *within the laying channel VN*, the elastic barbs WH having been wedged along the channel wall. Additional optical waveguides may possibly be *drawn or blown into the free ducts FK of the profile body VP at a subsequent point in time.* The upper part of the laying channel VN is, once again, filled with a sealant B. (emphasis added)

The first part of this section of FINZEL discloses the introduction of a microcable MK into the profile body VP “before the laying operation” (see column 26, lines 11-14). The second part of this section of FINZEL discloses drawing or blowing additional optical waveguides into free ducts FK of profile body VP after profile body VP has been laid in channel VN (see column 26, lines 15-21). Contrary to the assertions of the final Office Action, however, neither of these sections has anything to do with pulling a cable out of the duct and placing a second cable within the duct without removing the sealer within the trench. The section of FINZEL cited by the final Office Action, therefore, does not disclose “pulling the first cable out of, and through, the duct”

and “placing a second cable within the duct without removing the sealer within the trench,” as recited in claim 1.

The final Office Action (pg. 9) further asserts that the “step of pulling the first cable out of the duct merely requires the cable to be drawn until its end extends beyond the end of the duct and is inherent to the system shown by” FINZEL. To be inherently taught by a reference, the allegedly inherent characteristic must necessarily flow from the teachings of the applied reference. Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Other than a conclusory allegation, the final Office Action does not provide a basis in fact and/or technical reasoning to support the allegation that the steps of “pulling the first cable out of, and through, the duct” and “placing a second cable within the duct without removing the sealer within the trench” necessarily flows from the teachings of FINZEL. In fact, FINZEL clearly and expressly discloses that optical waveguides or conductors placed in a mini-cable in a trench are repaired by removing the material filled in the trench so that the mini-cable can be lifted out of the trench (see column 24, line 66 through column 25, line 2; column 25, line 55 through column 26, line 3; column 4, lines 31-34). Given the express teachings of FINZEL, in which a trench is excavated to lift out a mini-cable for repair, an inherent teaching of “pulling the first cable out of, and through, the duct” and “placing a second cable within the duct without removing the sealer within the trench” (emphasis added), as recited in claim 1, does not necessarily flow from the disclosure of FINZEL and, therefore, is not inherent to the disclosure of FINZEL.



Since FINZEL does not expressly, or inherently, disclose the combination of features recited in claim 1, FINZEL cannot anticipate claim 1. Reversal of the rejection of claim 1 under U.S.C. §102 is, therefore, respectfully requested.

Claims 2-4, 7, 11 and 12 depend from claim 1. Reversal of the rejection of these claims is requested for at least the reasons set forth above with respect to claim 1.

**B. The rejection of claims 6 and 13 under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL should be reversed.**

In paragraph 5, the final Office Action rejects claims 6 and 13 under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL. In rejecting claims 6 and 13, the final Office Action alleges that the features of claim 6 were well known, and that the features of claim 13 were inherent and anticipated (final Office Action, pg. 4). The final Office Action's allegations, however, do not remedy the deficiencies in the disclosure of FINZEL noted above with respect to claim 1, from which claims 6 and 13 depend. Reversal of the rejection of claims 6 and 13 is, therefore, respectfully requested for at least the reasons set forth above with respect to claim 1.

**C. The rejection of claims 23, 24, 28, 29, 31 and 32 under 35 U.S.C. §103(a) as unpatentable over FINZEL in view of MARTINEZ should be reversed.**

In paragraph 6, the final Office Action rejects claims 23, 24, 28, 29, 31 and 32 under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL in view of MARTINEZ. Appellant submits that the final Office Action has failed to make out a *prima facie* case of obviousness.

As one requirement for establishing a *prima facie* case of obviousness, the reference (or references when combined) cited by the Office Action must teach or suggest all of the claim features. *In re Vaeck*, 947 F.2d 488, U.S.P.Q.2d 1438 (Fed. Cir. 1991). See M.P.E.P. § 2143. Appellant respectfully submits that the references cited by the Office Action, either singly or in combination, do not teach or suggest each and every feature of claim 23.

Claim 23 recites a method that includes “cutting a trench into the concrete or asphalt to a depth of approximately 3.5 to 4.0 inches from a surface of the concrete or asphalt,” “placing a tubular material having a hollow inner diameter within the trench,” “filling at least a portion of the trench with a sealer,” “placing a first cable within the tubular material,” “removing the first cable from the tubular material without removing the sealer from the trench” and “placing a second cable within the tubular material without removing the sealer from the trench.”

In rejecting claim 23, the final Office Action admits (pg. 5) that FINZEL does not disclose “removing the first cable without removing the sealer,” as recited in claim 23. The final Office Action, however, alleges that MARTINEZ discloses a “method for providing fiber optic cable through existing service lines wherein a first cable is pulled out and a second one installed without removing overlying earth” (final Office Action, pg. 6). The final Office

Action further alleges that “it would have been obvious to one having ordinary skill in the art of cable laying...to modify the method disclosed by FINZEL ‘691 such that the first cable would be pulled without removing the sealer as suggested by MARTINEZ” (final Office Action, pg. 6). Appellant respectfully traverses these allegations of the final Office Action.

MARTINEZ discloses the use of flexible tubes for installing fiber optic cables through existing service pipes (see Abstract). As disclosed in paragraph [0010] of MARTINEZ, the problem that MARTINEZ is attempting to solve is the inability of conventional techniques to pull fiber optic cables through gas service pipes. Service pipes, generally, have been recognized in the art as a means of laying optical cable *without having to dig additional trenches in the ground* (see paragraphs [0006] and [0007]) for placement of the optical cable. MARTINEZ, however, recognizes that existing systems for laying optical cable through service pipes may not work effectively for smaller service pipes, such as gas service pipes (see paragraph [0009]).

MARTINEZ, thus, involves a technique for placing optic cables in gas service pipes, and not laying cables in trenches. In the technique of MARTINEZ, optic fiber is installed in a gas service pipe by feeding a flexible tube through an already buried gas service pipe, and installing fiber optic cables through the flexible tube (see paragraph [0013]) for the purpose of avoiding the need to excavate trenches in the ground when laying optic cable. MARTINEZ, therefore, discloses the use of a flexible tube for installing an optic cable through a gas service

pipe. Since the gas service pipes of MARTINEZ are already buried in the ground prior to installing the flexible tube and fiber optic cables, the technique of MARTINEZ has nothing to do with the removal of a cable from a tubular material placed in a trench without removing the sealer from the trench in which the tubular material is placed, as recited in claim 23.

MARTINEZ merely discloses the installation and removal of fiber optic cables from gas service pipes to avoid the digging of any trenches in the first place, and does not disclose, or even suggest, “removing the first cable from the tubular material without removing the sealer from the trench,” as recited in claim 23. FINZEL and MARTINEZ, therefore, singly or in combination do not disclose the combination of features recited in claim 23. Reversal of the rejection of claim 23 is requested for at least this reason.

Another requirement for establishing a *prima facie* case of obviousness is that there must be some reason, suggestion, or motivation to combine reference teachings. *In re Vaeck*, 947 F.2d 488, U.S.P.Q.2d 1438 (Fed. Cir. 1991). See M.P.E.P. § 2143. Appellant submits that the final Office Action has not provided a sufficient reason, suggestion, or motivation for combining the disclosure of MARTINEZ with the disclosure of FINZEL.

In support of the rejection of claim 23, the final Office Action alleges that “it would have been obvious to one having ordinary skill in the art of cable laying...to modify the method disclosed by FINZEL ‘691 such that the first cable would be pulled without removing the sealer as suggested by MARTINEZ” to “prevent disruption of the roadway” (final Office Action, pg. 6).

As discussed above, however, MARTINEZ discloses the use of a flexible tube for installing an optic cable through a gas service pipe, and not for laying optic cable in a trench. MARTINEZ discloses the installation of optic fibers through gas service pipes for the purpose of avoiding the need to excavate additional trenches in the ground that would be required to bury optic cables using conventional techniques (see paragraphs [0006] and [0007]). Since the gas service pipe is already buried in the ground, and installation and removal of the optic fiber can occur through the already buried gas service pipe, the disruption of the roadway is not even an issue with respect to the installation or removal of optical cables in MARTINEZ. Since, in the technique of MARTINEZ, there is no need to excavate trenches when installing a cable through a gas service pipe, one skilled in the art would not be motivated to combine the disclosure of MARTINEZ with the disclosure of FINZEL for the alleged purpose of “preventing disruption of the roadway.” Reversal of the rejection of claim 23 is respectfully requested for at least this additional reason.

Claims 24, 28, 29 and 31 depend from claim 23. Reversal of the rejection of these claims is respectfully requested for at least the reasons set forth above with respect to claim 23.

Appellant further submits that the disclosure of MARTINEZ does not remedy the deficiencies in the disclosure of FINZEL noted above with respect to claim 1, from which claim 32 depends.

Reversal of the rejection of claim 32 is, therefore, respectfully requested for at least the reasons set forth above with respect to claim 1.

**D. The rejection of claims 8-10 under 35 U.S.C. §103(a) as unpatentable over FINZEL and BANTZ should be reversed.**

In paragraph 7, the final Office Action rejects claims 8-10 claims under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL in view of BANTZ. The final Office Action cites BANTZ for allegedly disclosing a tubular spacer placed in a trench above a series of ducts (final Office Action, pg. 7). Appellant submits, however, that the disclosure of BANTZ does not remedy the deficiencies in the disclosure of FINZEL noted above with respect to claim 1, from which claims 8-10 depend. Reversal of the rejection of claims 8-10 is, therefore, requested for at least the reasons set forth with respect to claim 1 above.

**E. The rejection of claims 25 and 26 under 35 U.S.C. §103(a) as unpatentable over FINZEL and MARTINEZ and further in view of BANTZ should be reversed.**

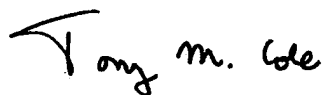
In paragraph 8, the final Office Action rejects claims 25 and 26 under 35 U.S.C. §103(a) as allegedly being unpatentable over FINZEL in view of MARTINEZ and BANTZ. The final Office Action cites BANTZ for allegedly disclosing a tubular spacer of water impermeable, heat resistant material (Office Action, pg. 8). Appellant submits, however, that the disclosure of BANTZ does not remedy the deficiencies in the disclosures of FINZEL and MARTINEZ noted above with respect to claim 23, from which claims 25 and 26 depend. Reversal of the rejection

of claims 25 and 26 is, therefore, requested for at least the reasons set forth with respect to claim 23 above.

### VIII. CONCLUSION

For at least the foregoing reasons, it is respectfully requested that the Examiner's rejections of claims 1-4, 7, 11 and 12 under 35 U.S.C. §102(b) and claims 6, 8-10, 13, 23, 24-26, 28, 29, 31 and 32 under 35 U.S.C. §103(a) be REVERSED.

Respectfully submitted,



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**APPENDIX**

**THE APPEALED CLAIMS**

The claims on appeal are as follows:

1. A method, comprising:  
  
cutting a trench in a surface of the roadway;  
  
placing a duct in the trench;  
  
filling the trench with a sealer;  
  
placing a first cable within the duct;  
  
pulling the first cable out of, and through, the duct; and  
  
placing a second cable within the duct without removing the sealer within the trench.
2. The method of claim 1, wherein the first cable comprises utility cable.
3. The method of claim 1, wherein the first cable comprises optical fiber cable.
4. The method of claim 1, wherein the trench is cut to a depth of approximately 3.5 to 4.0 inches beneath the surface of the roadway.



6. The method of claim 1, wherein the duct comprises high density polyethylene (HDPE) duct.
7. The method of claim 4, wherein the trench is cut to a width of approximately 0.5 inches.
8. The method of claim 1, further comprising:  
placing a spacer within the trench on top of the duct.
9. The method of claim 8, wherein the spacer comprises a tubular shape.
10. The method of claim 9, wherein a diameter of the spacer is approximately 25% larger than a width of the trench.
11. The method of claim 1, further comprising:  
placing sand within the trench.
12. The method of claim 1, wherein the sealer comprises bitumen.

13. The method of claim 12, wherein the sealer is heated to between approximately 325 and 375 degrees Fahrenheit before filling the trench.
23. A method of placing cable within concrete or asphalt, comprising:  
cutting a trench into the concrete or asphalt to a depth of approximately 3.5 to 4.0 inches from a surface of the concrete or asphalt;  
placing a tubular material having a hollow inner diameter within the trench;  
filling at least a portion of the trench with a sealer;  
placing a first cable within the tubular material;  
removing the first cable from the tubular material without removing the sealer from the trench; and  
placing a second cable within the tubular material without removing the sealer from the trench.
24. The method of claim 23, wherein the first cable comprises fiber optic cable.
25. The method of claim 24, further comprising:  
placing a spacer on top of the tubular material, wherein the spacer comprises a water impermeable, heat resistant material.

26. The method of claim 25, wherein the spacer has an outer diameter that is approximately 25% greater than a width of the trench.

28. The method of claim 23, wherein the tubular material comprises high density polyethylene (HDPE).

29. The method of claim 23, wherein the tubular material comprises an outer diameter of approximately 0.5 inches and wherein the inner diameter comprises approximately 0.375 inches.

31. The method of claim 30, wherein the sealer comprises bitumen heated to between 325 and 375 degrees Fahrenheit.

32. The method of claim 1, wherein the first cable is pulled out of, and through, the duct without removing the sealer within the trench.

**EVIDENCE APPENDIX**

There is no evidence relied upon by the Appellants in this appeal brief.

**RELATED PROCEEDINGS APPENDIX**

There are no related proceedings identified in the “Related Appeals, Interferences, and Judicial Proceedings” section of this appeal brief.